

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously presented) A method, comprising:  
sending a link layer login from a first port to a second port;  
subsequently, sending an application layer login from the first port to the second port to establish a first data path, wherein the first data path is from the first port to the second port; and  
subsequently, sending another application layer login from the second port to the first port to establish a second data path, wherein the second data path is from the second port to the first port, wherein a bidirectional data transfer application prevents the second port from sending another link layer login to the first port, wherein sending the another link layer login would cause a termination of the first data path.

2. (Previously presented) A method, comprising:  
sending a link layer login from a first port to a second port;  
subsequently, sending an application layer login from the first port to the second port to establish a first data path, wherein the first data path is from the first port to the second port; and  
subsequently, sending another application layer login from the second port to the first port to establish a second data path, wherein the second data path is from the second port to the first port, wherein the method further comprises:

(i) determining that the second port has an initiated link layer login to the first port, prior to sending the another application layer login from the second port to the first port; and

(ii) restricting the second port from sending another link layer login to the first port, wherein sending the another link layer login would cause a termination of the established first data path from the first port to the second port.

3. (Original) The method of claim 1, further comprising:  
restricting the second port to sending the another application layer login to the first port in response to determining that the second port has an initiated link layer login to the first port, wherein restricting the second port causes a retention of the established first data path from the

first port to the second port, and wherein restricting the second port and sending the another application layer login causes bidirectional data transfer to take place between the first and second ports.

4. (Canceled)

5. (Original) The method of claim 1, wherein the method is performed by one or more bidirectional data transfer applications that are implemented in first and second fibre channel adapters coupled to the first and second ports respectively, wherein the first and second fibre channel adapters are coupled to first and second storage controllers respectively, and wherein the first and second ports are coupled via one fibre channel link associated with the first and second data paths.

6. (Previously presented) A method, comprising:  
establishing a first data path from a first port to a second port;  
determining, at the first port, whether the second port has a second data path established from the second port to the first port;  
sending an application layer logout, from the first port to the second port, in response to determining that the second port has the second data path established from the second port to the first port; and  
terminating the first data path from the first port to the second port in response to receiving the application layer logout at the second port, wherein a bidirectional data transfer application prevents the first port from sending a link layer logout to the second port, wherein sending the link layer logout would cause a termination of the first and second data paths.

7. (Original) The method of claim 6, wherein terminating the first data path from the first port to the second port does not terminate the second data path from the second port to the first port.

8. (Canceled)

9. (Original) The method of claim 6, wherein the method is performed by one or more bidirectional data transfer applications that are implemented in first and second fibre channel adapters coupled to the first and second ports respectively, wherein the first and second fibre channel adapters are coupled to first and second storage controllers respectively, and wherein the first and second ports are coupled via one fibre channel link associated with the first and second data paths.

10. (Original) The method of claim 6, wherein the application level logout is sent via an application level logout frame, and wherein the first and second ports are capable of sending and receiving a link level login frame, a link level logout frame, an application level login frame and the application level logout frame over a fibre channel connection coupling the first and second ports.

21 – 30. (Canceled)